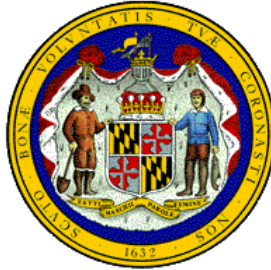


A plan for Gunpowder Falls State Park *Graham Area*



Maryland Department of Natural Resources
Public Lands Policy & Planning

State of Maryland



The Honorable Robert L. Ehrlich, Jr., *Governor*
The Honorable Michael S. Steele, *Lt. Governor*



C. Ronald Franks, *Secretary*

Maryland Department of Natural Resources
Public Lands Policy & Planning
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Approval of the **Area Plan** for **Graham Park**, part of
Gunpowder Falls State Park has been granted on the
this _____ day of _____, 2006.

C. Ronald Franks, Secretary
Maryland Department of Natural Resources

Acknowledgements

A number of agencies and individuals made significant contributions toward the development of the *Plan for The Graham Area, Gunpowder Falls State Park*. Staff from seven agencies within the Maryland Department of Natural Resources formed the planning team that made significant contributions towards the development of the Plan. Special thanks go to the members of this team for their time and effort.

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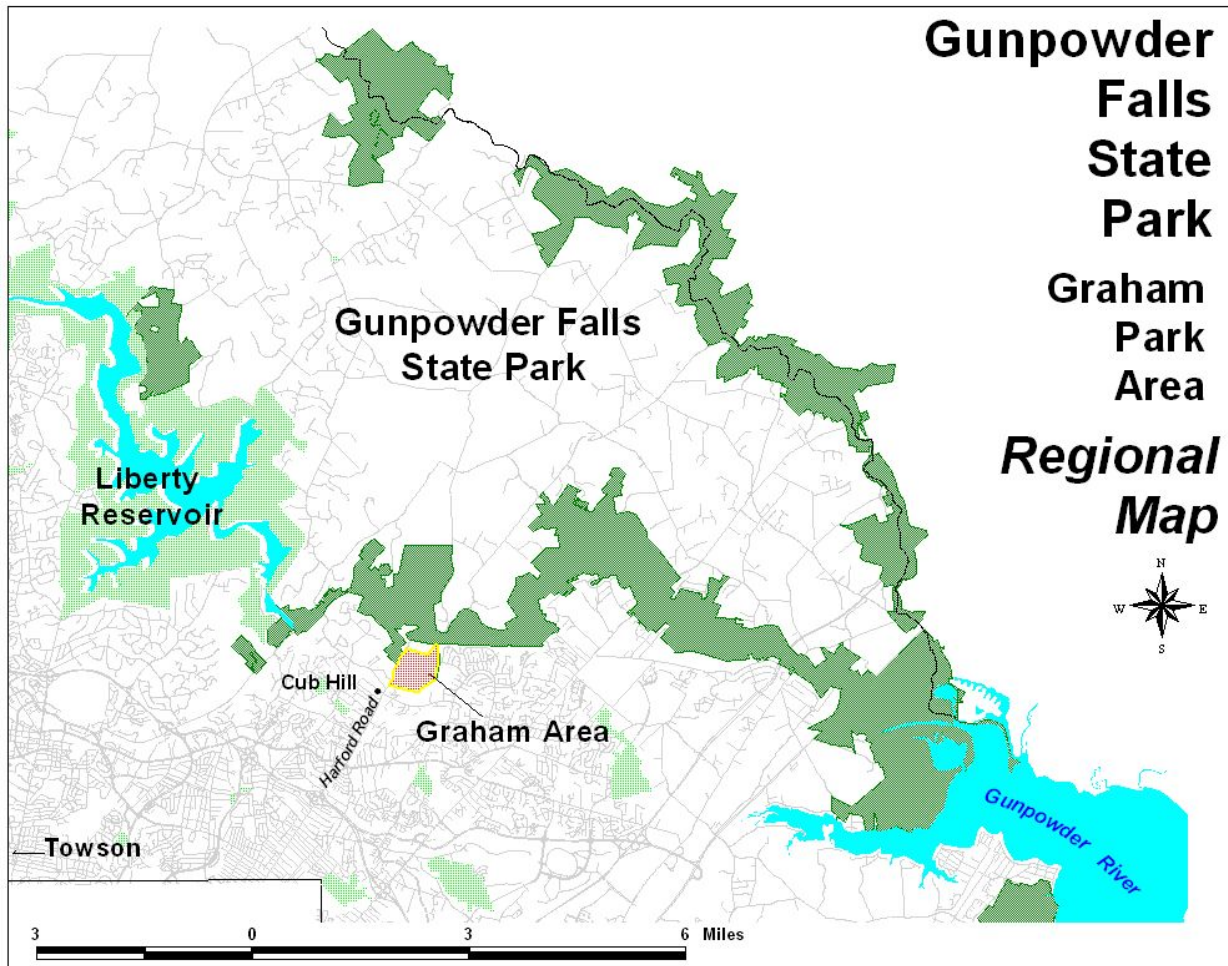
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Location

The Graham Area of Gunpowder Falls State Park is a 181-acre property composed of two tracts (parcel A 67.0 acres and parcel B 114.00 acres), and located in Glen Arm minutes from I-695 off the 10100 block of Harford Road, northeast of Carney, in east-central Baltimore County. The tract is narrowly separated from the main body of Gunpowder Falls State Park.



Purpose

The Graham Area was purchased in order to preserve the tract's significance as a quiet natural area, to provide suitable recreational opportunities, to expand protection for the watershed of Gunpowder Falls and to provide resource protection.

The purpose of this document is to assure that the purposes of the acquisition are carried out, and to promote a balance between small scale and measured recreational development and resource conservation as defined for *state parks* in The Code of Maryland Regulations COMAR 08.07.06.02.

Background

Albert D. Graham, a prominent bank official and Baltimore City's comptroller from 1955-1963, purchased the bulk of what is now Graham Park in 1938. He owned the property as a country estate for sixteen years before donating the property to the City of Baltimore *"for park and recreational purposes."*

While a city park, Graham was maintained as a quiet, pastoral landscape. Improvements included an entrance road, a barn, other outbuildings, trails and fencing. Portions of the tract



were leased to an equestrian outfit. For a brief time, the Baltimore City Police Department used the grounds to board and pasture their horses.

The Baltimore Bowmen, a 100-member archery group, has also used the northern portion of the property since 1961.

In response to criticisms that the Baltimore City Parks Department was not making sufficient revenues to pay for its programs, city officials announced in 1998 plans to convert the 68-acre portion of the park into a \$6.5 million sports complex. Concepts included a golf course, driving range, batting cages, concession stand and miniature golf, in hopes of grossing \$784,000 annually in proceeds from the operation.

The proposal met with resistance from local residents and county officials interested in preserving Graham's bucolic character. Following complicated proceedings, the Maryland Department of Natural Resources purchased Graham Memorial Park from Baltimore City for \$1,500,000 on February 4, 1999, and incorporated the tract into Gunpowder Falls State Park.

In a Special Warranty Deed, Baltimore City subjected the tract to the following covenants intended to run with the land:

-Property shall be used solely as a park for passive recreation purposes

-Property shall not be used for any of the following: golf course, golf driving range, baseball or softball batting cages, amusement rides, video games or a

video arcade, mechanical games of skill, motorized vehicle amusement rides or contests, ice-skating rink, roller skating rinks, rental of sporting equipment of any kind, any fire arm shooting activity except for shooting activities undertaken by the grantee or its agents to ensure the protection of the Property or the Health, Safety and Welfare of the citizens of the State.

PHYSICAL DESCRIPTION

Geology

The Graham Area is located in the far eastern to southeastern edge of the Towson 7.5-minute quadrangle (Fig. 1), immediately east of Harford Road (route 147) between Cub Hill and the Gunpowder Falls in eastern Baltimore County (coordinates roughly 39.41°N latitude, 76.51°W longitude). It lies within the Fall Zone, a transitional belt between the crystalline rocks of the Piedmont Plateau to the west and the Coastal Plain to the east. Structurally, the park lies on the southeastern flank of the Towson anticline, an arch-like fold that manifests itself in the Towson Dome, having more or less a concentric pattern with billion-year old Baltimore Gneiss in the center and surrounded by younger (on the order of 600 million years) metamorphosed sedimentary rocks – mainly various schists – that have been intruded with igneous rocks – pegmatite and gneiss sills.

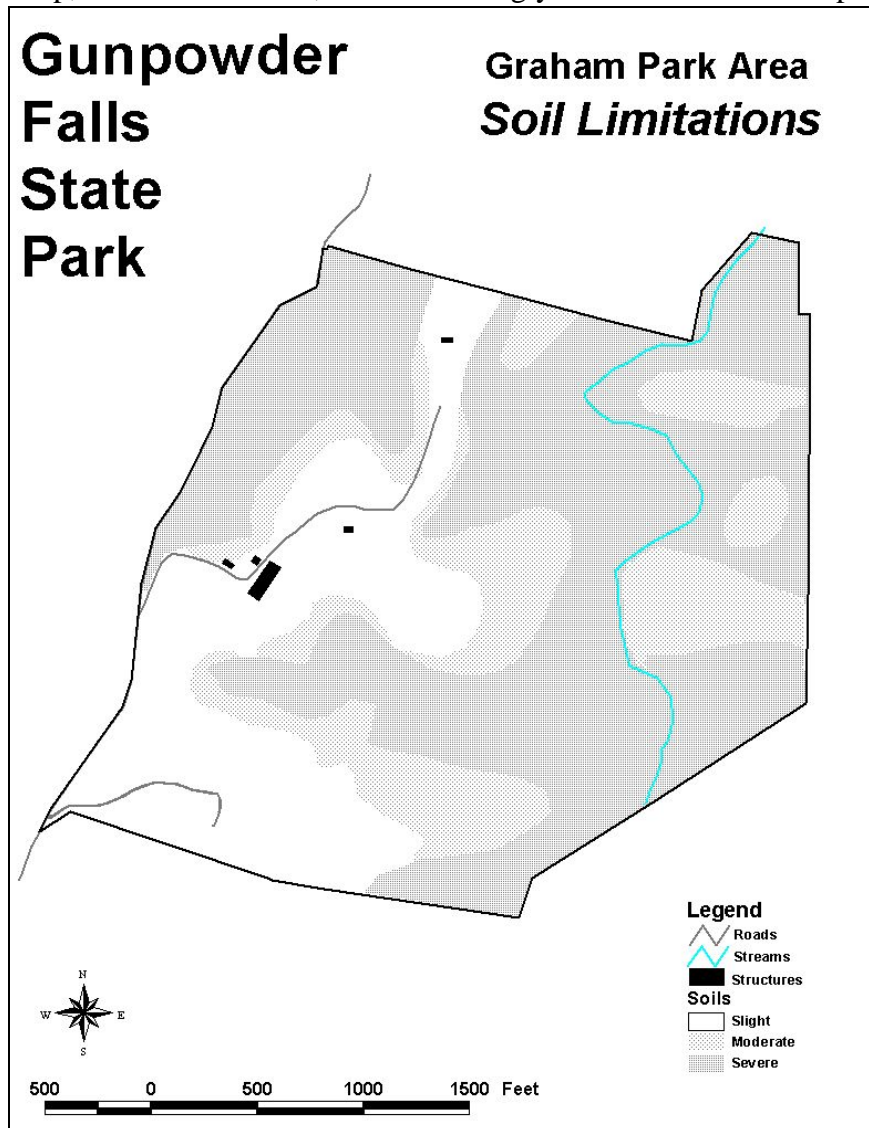
The park itself lies completely on crystalline rocks. The main rock unit beneath Graham Park is a schist called the Oella Formation (Fig. 2). Roughly along the eastern boundary of the park and along part of Jennifer Branch is the trace of a thrust fault with the fault plane dipping to the east. The park on the west side of the fault lies on the underthrust side, or footwall, of the fault, which brings the older Raspeburg Amphibolite (part of the Baltimore Mafic Complex) “up and over” younger rocks like the Oella Formation from east to west.

The faulting and metamorphic history of the region relates to various phases in the development of the Appalachian Mountains. In fact, the Maryland Piedmont of today comprises the ancient and eroded roots of the ancestral, or first generation, Appalachian Mountains.

Soils

Soils at Graham are diverse, owing to its varied physiography. Like much of central and northern Baltimore County, they are grouped into the Manor-Glenelg association. These are gently sloping to very steep, deep, well-drained to somewhat excessively drained soils that have a subsoil of loam to light silty clay loam. These are underlain by acid crystalline rock, most likely mica schist, and located usually along uplands.

The gently sloping fields west of Jennifer Run are underlain with Glenelg loams. These are deep, well-drained soils, acidic to strongly acidic with moderate permeability, and moderate



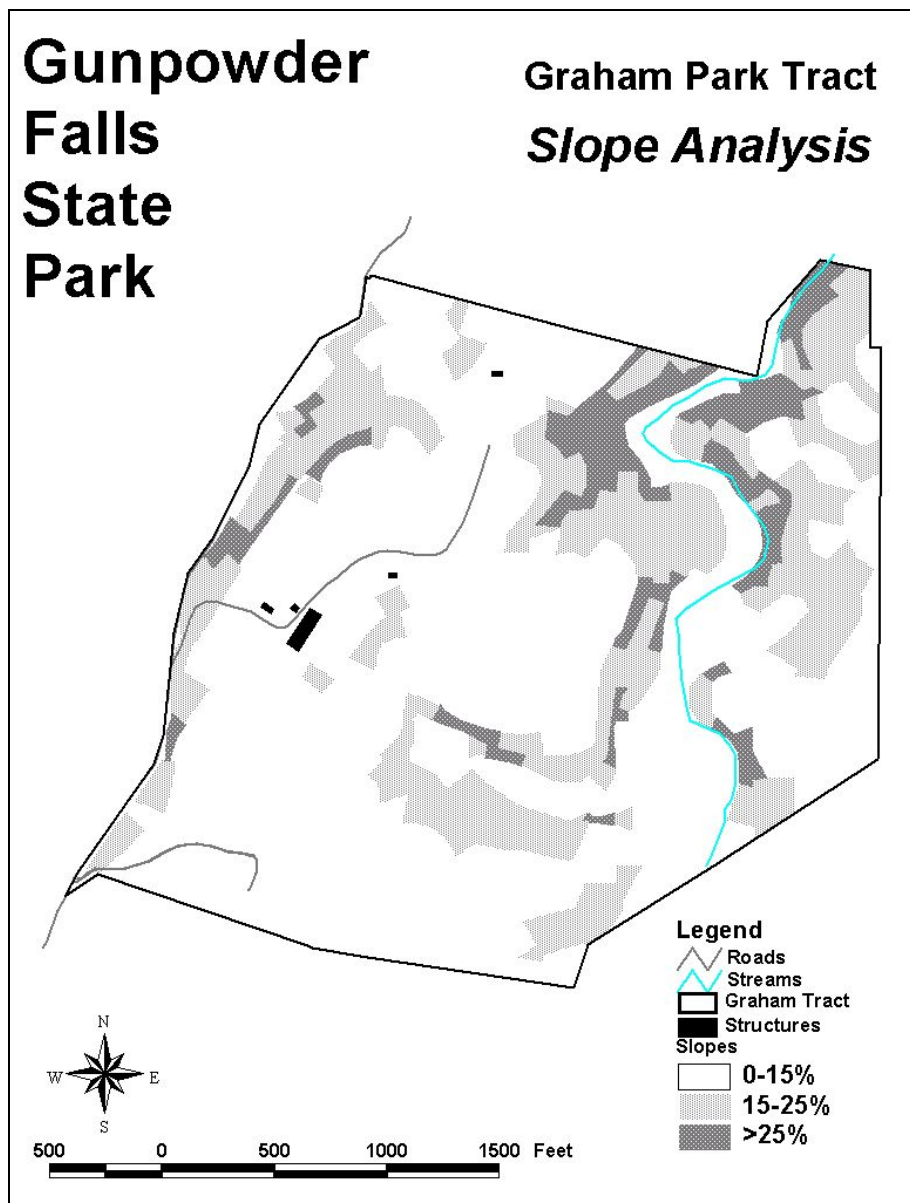
to high available moisture capacity. These are the most common and productive farming soils in the county. Brandywine loam occupies the open area's side slopes. These are dryer, more gravelly, and with a lower moisture holding capacity.

Manor loams underly the forested flats, sideslopes and ravines. These soils ranges anywhere from 3 to 50% in grade, and are moderately to steeply eroded. Manor loams are deep, well-drained to somewhat excessively drained, gently sloping to steep soils. These are formed from acid crystalline rock, mostly mica schist, and weathered in place. Consequently they contain large

amounts of mica. Manor loams are more susceptible to erosion than other soils in the Baltimore County Piedmont, given similar grades. The alluvial soils along Jennifer Branch are Codorus silt loams, which are deep, moderately well drained to somewhat poorly drained, and level or nearly level soils on flood plains.

Jennifer Branch

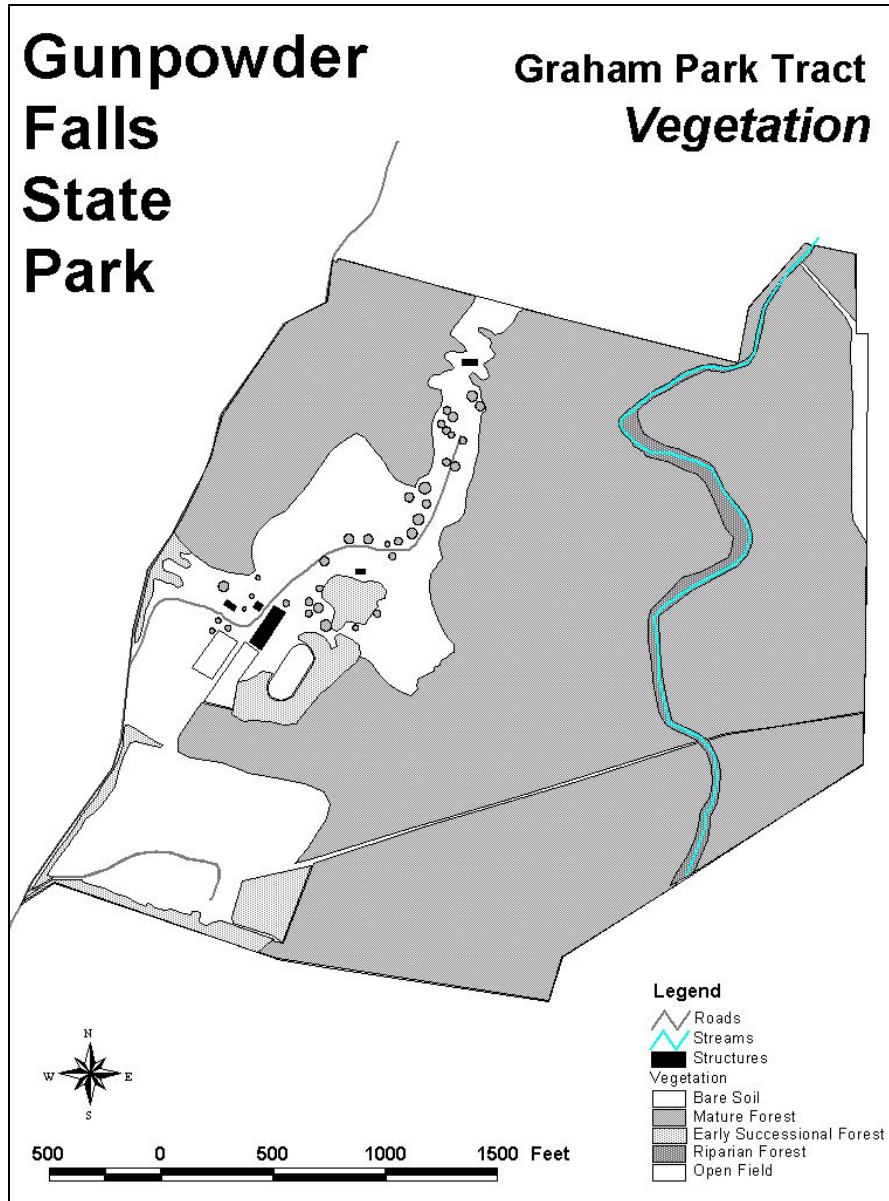
Jennifer Branch is a third order tributary transecting the property, whose headwaters and 80 percent of its watershed are located northward in suburban Baltimore. The stream suffers from thermal spikes, high peak flows and low base flows, with consequent surges of sand and gravel, making it too inhospitable to native brook trout, or for sport fishing in general. It is nonetheless an impressive piedmont stream with well-incised steep ravines as it courses through Graham, owing to its location along the 'Fall Line' separating the Piedmont and Coastal Plain physiographic regions.



Vegetation

According to the *Vegetation Map of Maryland* (Brush, Lenk & Smith 1976), the upland areas within Graham Park are characteristic of the *Tulip Poplar Association*, which is marked by the presence of red maple, flowering dogwood, Virginia creeper, black gum, shingle oak, sassafras, black cherry, grape, mockernut hickory, southern arrowwood, Japanese honeysuckle, pignut hickory, black oak, poison ivy, greenbriers, beech, spicebush, northern

red oak, mapleleaf viburnum, early low blueberry, choke cherry, and greenbrier.



The early successional forests bordering the fields to the south and east are also indicative of the *Tulip Poplar Association*. These are small, pole-sized stands dominated with tree of heaven and other exotic vegetation including paulonia, multiflora rose, Japanese stilt grass, ground mint, garlic mustard, mile-a-minute, chickweed, bush honeysuckle, tree of heaven and others.

The forested floodplains and riparian corridor along Jennifer Branch and tributaries are

indicative of the *Sycamore-Green Ash-Boxelder-Silver Maple Association*, characterized by the presence of red maple, Virginia creeper, white oak, flowering dogwood, grape, black cherry, northern red oak, spicebush, tulip poplar, black gum, Japanese honeysuckle, sassafras, white ash, mockernut hickory, poison ivy, southern arrowwood, black oak, pignut hickory, brambles, greenbriers and ironwood.

Fauna

Animal species present at Graham Park and environs are typical of those found in the Maryland Piedmont. Signs of mammal species observed during this course of study include groundhog, opossum, gray squirrel, raccoon, cottontail rabbit, and red fox. White-tailed deer populations at Graham presently exceed its carrying capacity.

Bird species observed include brown creeper, white nuthatch, Carolina chickadee, tufted titmouse, barn swallow, hairy, downy, red-bellied and pileated woodpeckers, yellow-shafted flicker, indigo bunting, eastern bluebird, wood and Swainson's thrush, turkey and black vulture, red-tailed hawk, common crow, fish crow, blue jay, European starling, house, field, song and white-throated sparrows, slate-colored junco, cardinal, mockingbird, catbird, common towhee, eastern kingbird and Acadian flycatcher.

Fish observed during the last survey in Jennifer Branch performed by Maryland Fisheries in June of 2002 recorded a number of species including longnose and rosieside dace, creek chub, common shiner, margined madtom, tessellated darter and redbreast sunfish. Several of these are indicators of good quality aquatic habitat. Those most abundant species present in the stream were blacknose dace, creek chub, white sucker and American eel.

Overall, the vertebrate population is healthy and well-diversified.

Rare, Threatened or Endangered Species

There are no records of any rare, threatened or endangered species occurring on the Graham tract.

Cultural Resources



No historical or cultural resources are known to be present on-site; however, several historic structures are located within a five-mile radius. These include the Cub Hill House and the Hiss House. Vestiges of both date back to the early 19th century.

PARK PROGRAM

As stated previously, the Graham Area was purchased in order to preserve the tract's significance as a quiet natural area, to provide appropriate resource-based recreational opportunities, to expand protection for the watershed of Gunpowder Falls and to provide resource protection.

The Graham Area will be managed and operated according to the following tenets based upon its justifications for park acquisition:

- ◆ Protection of the water quality of Gunpowder Falls and its tributaries;
- ◆ Maintenance and enhancement of biological diversity;
- ◆ River Access & development of passive resource based recreation.

EXISTING USES

GRAHAM EQUESTRIAN CENTER

Graham Equestrian Center (GEC) is a non-profit organization operating an equine educational and boarding facility on 22 acres of pasture and paddocks within the Graham tract. A Memorandum of Understanding signed by GEC and MDNR in November of 2002 outlines the organization's role at Graham.



These include:

- a. Staffing the Graham Equestrian Facilities with assistance from the DNR. GEC will provide a caretaker to live on-site, which will help increase security at the facility.
- b. Conducting walking tours and school field trips as requested by the Community and scheduled by The GEC.
- c. Conducting fund-raising events (e.g. horse shows and breed demonstrations)
- d. Conducting programs (e.g. organized trail rides, as well as other non-equestrian events that is in keeping with the DNR Objectives and Initiatives such as Nature Tourism, Trash Free Parks, and Play Safe)
- e. Maintain the GEC buildings, including furnishings and displays.
- f. Any other activities, which are approved by DNR and are in accordance with the Lease Agreement.

GEC is intended to be a model equestrian facility using best management practices as per the Conservation Plan prepared through the local USDA Natural Resources Conservation Service (NRCS). According to the nutrient management plan, 22 horses are the maximum recommended, and the GEC horse barn is fully boarded as of spring '05. GEC will continue to work with NRCS and the Soil Conservation District to implement the plan.

GEC has been actively improving the facility. Old wire fencing has been removed and replaced with new 3-board fencing, and pastures and paddocks have undergone restoration, with assistance of the USDA and the Baltimore County Extension Service.

Additional capital improvements are proposed, which include barn renovations and additional pasture enhancements. These will help to meet the objective of providing model equestrian education programming.

Baltimore Bowmen

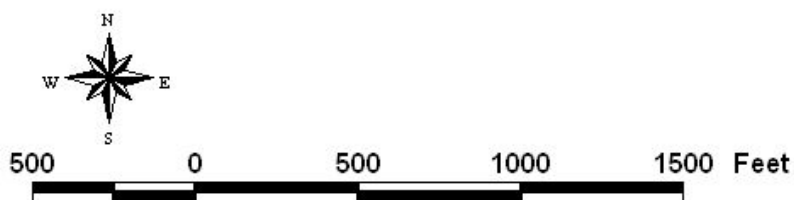
Baltimore Bowmen, Inc. (BB) has operated an archery range facility in the northern portion of Graham since 1961. It is open to the public for a fee.

Common Use Area

Located between the Graham Equestrian Center and the Baltimore Bowman leased area is a large open field currently managed by GEC. The field is open to the general public when not reserved for special use by GEC or the Baltimore Bowmen.

Gunpowder Falls State Park

Graham Park Area *Use Areas*



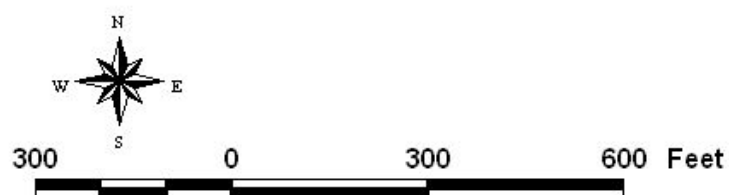
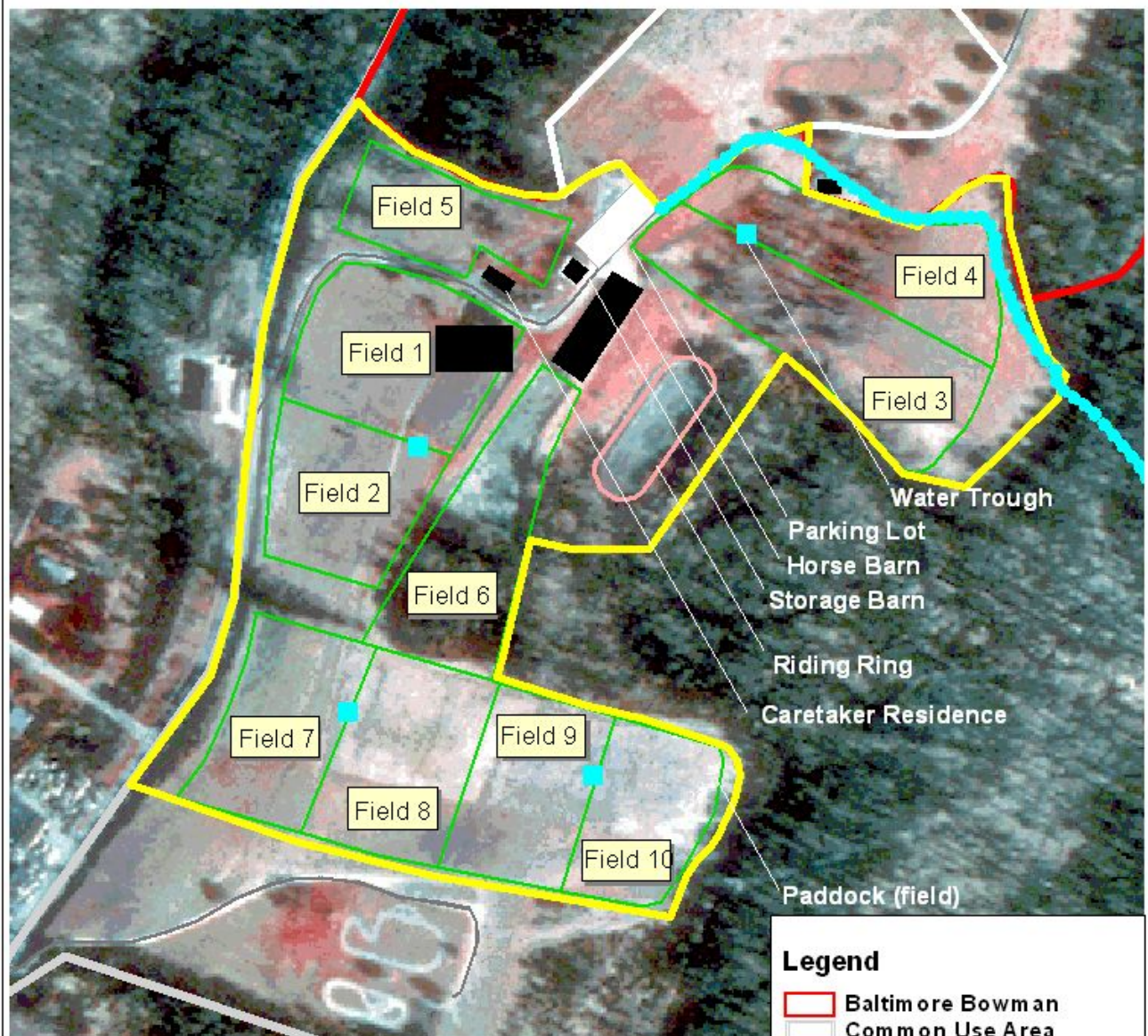
Legend

-  Baltimore Bowman Use Area
-  Common Use Area
-  GEC Use Area
-  Graham Tract

Gunpowder Falls State Park

Graham
Park Area

GEC Use Area



Legend

- Baltimore Bowman
- Common Use Area
- Graham Equestrian Center
- Paddocks
- Ring
- Parking Lot
- Water Trough
- Structures

GENERAL RECOMMENDATIONS

Activities

Traditional recreational uses available to the general public at Graham include hiking, horseback riding, mountain biking, nature study, photography and informal open field play. The dominant uses from the standpoint of land use and recreational man-hours are expected to continue to be the various activities available to users of the Graham Equestrian Center [GEC] and the Baltimore Bowmen [BB]).

Physical Plant Maintenance

Buildings, other structures and appurtenances (include select trails, parking areas, utility lines, etc.) currently used by the GEC and the BB will be maintained by them, at their own cost, and in a condition suitable to the Maryland Department of Natural Resources.

Maintenance and upgrades to the entrance road and the general use parking lot will continue to be the responsibility of the Maryland Department of Natural Resources.

Improvements/Additions to Physical Plant

Any new construction by the GEC or the Baltimore Bowmen must be approved by the Maryland Department of Natural Resources.

Signage

Standardized DNR entrance signage will be installed so as to minimize visitor confusion and further encourage utilization by the broad public.

Entrance Road

The entrance road will be upgraded and realigned with Harford Road. Critical maintenance funds for improving the road have been requested, and \$50,000 has been earmarked tentatively for FY 2006.

Harford Road

Harford Road's alignment along the one-half mile segment north of Big Gunpowder Falls winds northeastward as it descends towards the stream. Site-distance is thus at a minimum, especially when considering slope. The State Highway Administration and DNR are working to provide road signage cautioning motorists of the public parking lot located near the bridge.



General Use Parking Lot & the Blue Trailhead

The general use parking lot will continue to be shared by GEC and the general public. In an effort to control the level of use at Graham, the size, or footprint, of the lot will remain the same. Funds secured from the federal National Recreation Trails Grant program are being used to upgrade the parking lot with crushed stone for 25-30 vehicles.

The size of the parking lot provides a means to control the number of park users at any given time.

A trailhead for the Blue Trail has been established on the north side of the general use parking lot to encourage visitors to begin their trail experience at Graham rather than the pull-in lot located by the Harford Road Bridge. Other improvements include a trail kiosk and fencing. A spur trail from Graham to the main trail along the Gunpowder River has been established for some time, and has recently been moved further from the area leased to the Baltimore Bowman.

Trail Management

The multiple use trails at Graham are expected to receive more intensive use in the future. Older trail segments of trail, including portions of the gas line, are poorly aligned for heavy traffic. At some future point these may require realignment, and the use of raised dips and other engineering devices shall be considered for greater durability and facilitated maintenance. The park staff shall monitor trail conditions, including trails within the area leased to Baltimore Bowmen, and use flexibility when trail conditions deteriorate. Management techniques include trail use segregation, trail realignment, and seasonal, temporary and permanent closures. Responsibility for trail management will be shared by GEC, BB as well as the Park Service.

Trails and Private Property

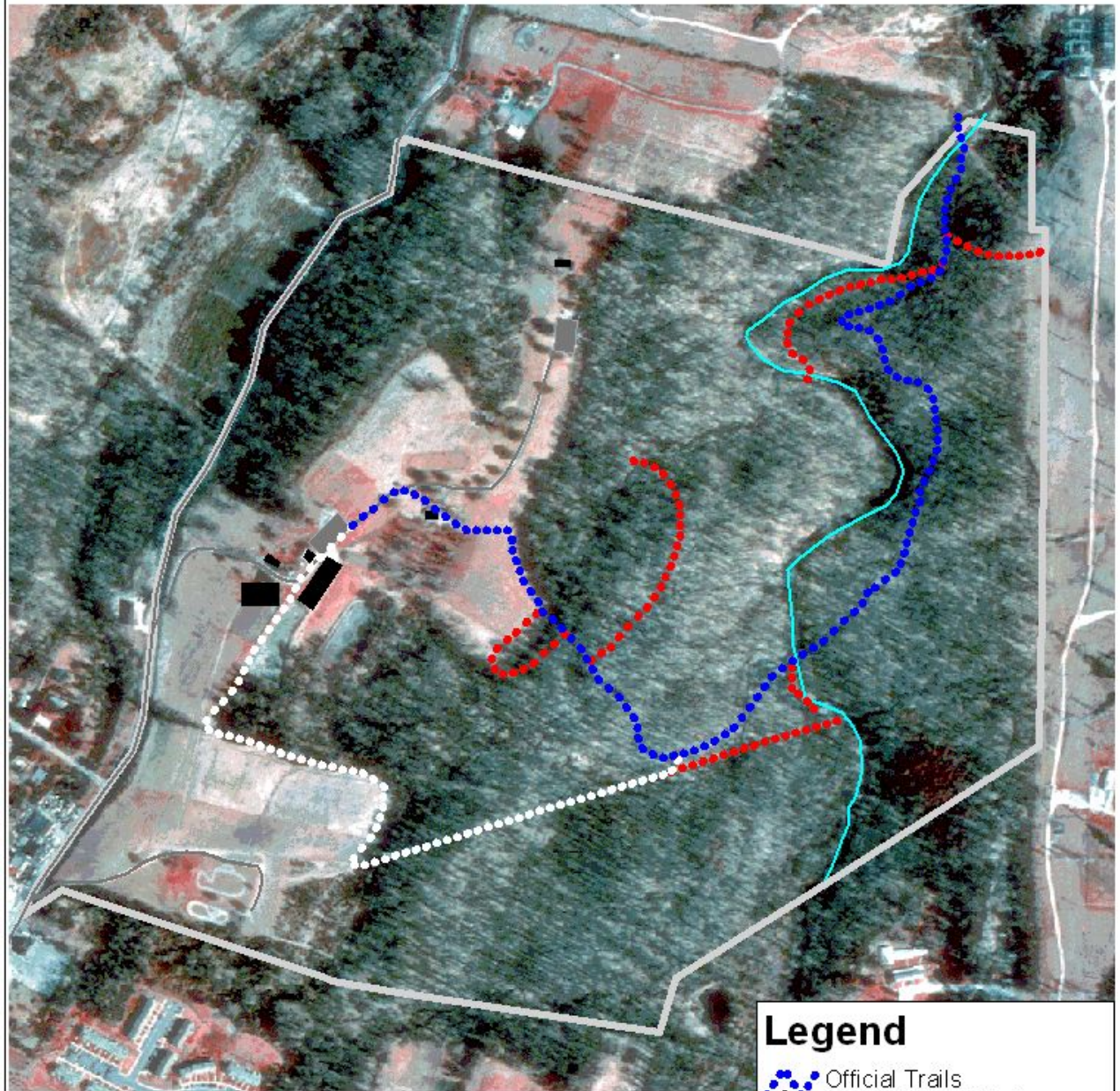
The trail linking Graham to Gunpowder Falls briefly transects land owned by Baltimore Gas & Electric. A management agreement will be prepared that protects BG&E from liability associated with recreational use on their land.

Separation of Uses

In order to maximize safety to users of the blue trail, any archery targets currently cited on the east side of Jennifer Branch will be relocated and reoriented.

Gunpowder Falls State Park

Graham Park Area *Trails*



Legend

- Official Trails
- Future Official Trails
- Trails Proposed for Closure
- Streams
- Roads
- Parking
- Structures

Gunpowder Falls & Jennifer Branch

The Graham Area will be planned, developed and managed in a manner that affords the greatest protection to Jennifer Branch and its tributaries. Stormwater runoff and erosion will be controlled in a variety of ways. These include, but are not limited to the following:

- (1) GEC will continue to use best management practices as described in the nutrient management plan prepared by the local USDA Natural Resources Conservation Service (NRCS).
- (2) Trails will be inspected on a regular basis, and steps will be taken to mitigate undue wear and tear that might result in a surcharge of erosion.
- (3) Carrying capacity will be controlled, as previously stated, by limiting the parking lot to a capacity of 25-30 vehicles.

Off-Road Vehicles

MDNR will continue to enforce restrictions on Off-Road Vehicle use coming from adjacent communities. ORV use by the Baltimore Bowmen will continue, but use will be restricted to conveying targets and other heavy equipment, as well as to facilitate trail maintenance.

Wildlife Management

MDNR shall consider the use of managed hunts to control wildlife populations and promote a sustainable ecosystem.



Land Acquisition

The Department shall consider acquisition, in fee simple or easement form, of additional lands adjacent to the Graham Area and other tracts within the environs of Gunpowder Falls State Park from willing sellers only, and on a case-by-case basis.

Area Plan
Graham Area
Gunpowder Falls State Park



State of Maryland
Robert L Ehrlich, Jr., *Governor*
Michael S. Steele, Lt. *Governor*



Maryland Department of Natural Resources
C. Ronald Franks, Secretary

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